Amendments to the Claims:

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1. (*Currently Amended*) A surface treatment method for a compound semiconductor layer, the compound semiconductor layer including nitrogen, the method including ~~a nitrogen plasma treatment step to recover~~:

removing part of the compound semiconductor layer by dry etching;

performing a nitrogen plasma treatment step to recover from damage due to nitrogen vacancies arising in a surface of the compound semiconductor layer as a result of the dry etching.

Claim 2. (*Currently Amended*) The surface treatment method of claim 1, wherein the nitrogen plasma treatment step is performed by inductively coupled plasma reactive ion etching.

Claim 3. (*Currently Amended*) The surface treatment method of claim 1, wherein the nitrogen plasma treatment step is performed by non-etching exposure to nitrogen plasma.

Claim 4. (*Currently Amended*) The surface treatment method of claim 1, ~~wherein~~ further comprising rinsing the treated surface of the compound semiconductor layer ~~is rinsed~~ with pure water after the nitrogen plasma treatment step.

Claim 5. (*Currently Amended*) A surface treatment method for a compound semiconductor layer, the compound semiconductor layer ~~being a compound semiconductor layer~~ comprising a first compound semiconductor layer including nitrogen and a second compound semiconductor layer formed on and differing in composition from the first compound semiconductor layer, the method including:

removing part of the second compound semiconductor layer by dry etching to partially expose a surface of the first compound semiconductor layer; and

performing a nitrogen plasma treatment step to recover from damage due to nitrogen vacancies arising in the exposed surface of the first compound semiconductor layer as a result of the dry etching.

Claim 6. (*Original*) The surface treatment method of claim 5, wherein the first compound semiconductor layer comprises aluminum gallium nitride ($Al_xGa_{1-x}N$, $0 < x < 1$) and the second compound semiconductor layer comprises gallium nitride (GaN).

Claim 7. (*Original*) The surface treatment method of claim 5, wherein the nitrogen plasma treatment step is performed by inductively coupled plasma reactive ion etching.

Claim 8. (*Original*) The surface treatment method of claim 5, wherein the nitrogen plasma treatment step is performed by non-etching exposure to nitrogen plasma.

Claim 9. (*Currently Amended*) The surface treatment method of claim 5, ~~wherein~~ further comprising rinsing the treated surface of the first compound semiconductor layer ~~is rinsed~~ with pure water after the nitrogen plasma treatment step.

Claim 10. (*Currently Amended*) A method of fabrication of a semiconductor device, the method comprising:

forming a compound semiconductor multilayer on a substrate, the compound semiconductor multilayer having a first compound semiconductor layer including nitrogen and a second compound semiconductor layer formed on and differing in composition from the first compound semiconductor layer;

forming a first main electrode and a second main electrode on the second compound semiconductor layer, the first and second main electrodes being mutually separated by a certain distance;

removing an area of the second compound semiconductor layer between the first main electrode and second main electrode by dry etching to expose a surface of the first compound semiconductor layer;

annealing the partially exposed first compound semiconductor layer;

treating at least part of the exposed surface area of the first compound semiconductor layer with nitrogen plasma to recover from damage due to nitrogen vacancies arising in the exposed surface of the first compound semiconductor layer as a result of the dry etching; and

forming a gate compound semiconductor layer on said part of the exposed surface area of the first compound semiconductor layer.

Claim 11. (*Original*) The method of fabrication of a semiconductor device of claim 10, wherein the first compound semiconductor layer comprises aluminum gallium nitride ($Al_xGa_{1-x}N$, $0 < x < 1$) and the second compound semiconductor layer comprises gallium nitride (GaN).

Claim 12. (*Original*) The method of fabrication of a semiconductor device of claim 10, wherein the nitrogen plasma treatment step is performed by inductively coupled plasma reactive ion etching.

Claim 13. (*Original*) The method of fabrication of a semiconductor device of claim 10, wherein the nitrogen plasma treatment step is performed by non-etching exposure to nitrogen plasma.

Claim 14. (*Original*) The method of fabrication of a semiconductor device of claim 10, further comprising rinsing the treated surface of the first compound semiconductor layer with pure water after the nitrogen plasma treatment step.

Claim 15. (*Original*) The method of fabrication of a semiconductor device of claim 10, wherein the semiconductor device is a high electron mobility transistor.